stream infection.

doi:10.1016/j.ijid.2010.02.2075

56.037

Risk factors for central venous catheter-related infections in cardiac unit of tertiary care hospital in northern India

R. Kumar*, B. Kajla, D. Kaur, G.S. Wander

Dayanand Medical College & Hospital, 141001, Punjab, India

Background: The need for therapy and nutrition of severely ill patients has led to ever increasing use of indwelling central intravascular catheters. Intravascular catheters are indispensable in modern-day medical practice, particularly in intensive care units (ICUs). This study estimated the incidence and risk factors of central venous catheter related infections.

Methods: During a 18-month period, a total of 150 patients who underwent central venous catheterization were enrolled. Catheters ($n = 150$) were cultured semiquantitatively and blood cultures done simultaneously. Isolates obtained were identified and the risk factors were analyzed statistically.

Results: The rate of catheter related bloodstream infection was 3/1000 catheter days. On multivariate analysis, fever was found to be independent predictor of CRBSI. The rate of CVC colonization was 54.01/1000 catheter days. On univariate analysis, statistically significant correlation was found with duration of catheterization, raised total leukocyte count and fever on day of removal of catheter. On multivariate analysis co-morbid state such as Diabetes mellitus and Hypertension, raised TLC and fever on the day of removal of catheter were found to be independent predictors of CVC colonization. The organisms isolated were *Staphylococcus aureus, Pseudomonas aeruginosa, Klebsiella pneumoniae, Non Haemolytic Streptococci, E.coli, Acinetobacter baumannii, Candida spp., Staphylococcus epidermidis* and *Stenotrophomonas maltophila*.

Conclusion: Despite their potential preventability, catheter-related infections still impose a substantial burden on critically ill patients. Recent studies have brought better understanding of the risk factors for intravascular catheter infections and have clarified preventive infection control strategies.

doi:10.1016/j.ijid.2010.02.2076

56.038

Success in stopping transmission of enterococci in a Brazilian public teaching hospital

F. Rossini*, R. Fagnani, M. Leichsenring, L. Cardoso, M.L. Moretti, P. Trabasso

UNICAMP, Campinas, Brazil

Background: Vancomycin-resistant enterococci (VRE) are a major problem in many hospitals mainly because of their capability to colonize or cause disease among high risk

Objective: To describe an outbreak of VRE in a Brazilian teaching hospital and evaluate the impact of educational and engineering measures in its control.

Methods: We conducted a retrospective study from February 2008 to January 2009. Medical reports were reviewed in respect of demographic data, underlying diseases, comorbidities, risk factors, wards, and length of stay. Primary outcomes were if the patient was colonized or infected and death. Differences between the variables were considered significant when $p < 0.05$.

Results: There were 150 patients with isolation of VRE, 139 (93%) of them in rectal swab. The 11 (7%) left patients were infected in blood ($n = 4$), ascitic liquid ($n = 2$), central venous catheter ($n = 2$), and in pleural effusion, urine and wound infection ($n = 1$ each). There were 94 (63%) men and the median age was 50 yrs-old. The main wards were Medical, Onco-Hematology, Trauma, Clinical Emergency and Gastroenterology, corresponding of 73% of patients. There were no differences between patients in respect of being colonized or infected according sex, age, underlying disease and comorbidities. Patients with infection were observed more frequently among those in mechanical ventilation ($p = 0{,}013$), with central venous catheter ($p = 0.043$), indwelling urinary catheter ($p = 0.049$) or surgical drains ($p = 0.049$). Death was more frequent among infected (73%) than in colonized (17%) patients ($p < 0.001$). An informative campaign was carried out, comprising of lectures for the healthcare professionals and distribution of leaflets for patients. Environmental cleaning was reinforced, and gel alcohol dispensers were widely distributed in all hospital areas. Isolation precautions for VRE and restriction to visits were implemented. The ongoing monitoring of the outbreak shows a significant decrease in the number of cases, with 25 new cases in 8 months.

Conclusion: Educational measures and reinforcement of environmental cleaning were effective for deterring the dissemination of VRE.

doi:10.1016/j.ijid.2010.02.2077

56.039

Pseudooutbreak of *Cedecea lapagei* bacteremia in emergency room

W.S. Choi*, Y.K. Youn, Y.M. Jo, J.Y. Kim, M.J. Kim, W.J. Kim, H.J. Cheong, J.-W. Sohn, J.Y. Song, D.W. Park

Korea University College of Medicine, Seoul, Korea, Republic of

Background: Cedecea lapagei is a very rare pathogen for human infection. There was only one report of prior isolation of *C. lapagei* from blood. We experienced a pesudooutbreak of *C. lapagei* bacteremia in emergency room (ER). We described the outbreak and outbreak investigation, along with performing genetic analysis of the isolated bacteria.

Methods: From September 28 to November 5, 2009, 19 blood samples, which were collected from 11 patients in ER, were positive for *C. lapagei*. The 19 isolates showed similar antibiogram. The isolates were genotyped by pulsed-field gel electrophoresis (PFGE). We performed case-control